

## CLAIMS

1. (Currently Amended) A computer readable storage medium having computer-executable instructions that, when executed, cause one or more processors to perform acts, the instructions comprising:

receiving a string in an interactive environment, the string including a plurality of pipelined cmdlets, the plurality of pipelined cmdlets to share use of one or more common directive functions provided by an administrative tool framework, the one or more common directive functions are applicable to each of the cmdlets via attributions;

identifying an attribution for each of the plurality of pipelined cmdlets within the string, each attribution to specify a constraint for an associated construct;

identifying the associated construct of each attribution in the string; saving information that correlates each constraint with its associated construct as metadata that is associated with each construct; and executing the string in the interactive environment, wherein executing the string includes:

executing a first cmdlet of the plurality of pipelined cmdlets by using metadata associated with a first construct to apply a first constraint to the first construct to produce output objects;

providing the output objects to a second cmdlet of the plurality of pipelined cmdlets as input for a second construct by passing a reference of each of the output objects to the second cmdlet; and

executing the second cmdlet by using metadata associated with the second construct to apply a second constraint to the second construct,

wherein the one or more common directive functions used by each cmdlet is specified by a corresponding data structure that is instantiated into an object for the administrative tool framework.

2. (Canceled).

3. (Previously Presented) The computer readable storage medium of claim 1, wherein the construct comprises a variable, a structure, a function, or a script.

4. (Canceled).

5. (Canceled).

6. (Previously Presented) The computer readable storage medium of claim 1, wherein the string comprises a command string entered in a command line environment.

7. (Previously Presented) The computer readable storage medium of claim 1, wherein the string comprises a portion of a script.

8. (Previously Presented) The computer readable storage medium of claim 1, wherein identifying the attribution for each of the plurality of pipelined cmdlets comprises identifying a plurality of attributions associated with each construct.

9. (Previously Presented) The computer readable storage medium of claim 1, wherein at least one of the identified attributions specifies a type for its associated construct.

10. (Previously Presented) The computer readable storage medium of claim 1, wherein at least one of the identified attributions specifies applying intellisense to its associated construct to auto-complete the construct.

11. (Currently Amended) The computer readable storage medium of claim 1, wherein at least one of the identified attributions specifies applying a predicate directive of the one or more common directive functions to the string that is operative to determine whether processing of the string continues.

12. (Currently Amended) The computer readable storage medium of claim 1, wherein at least one of the identified attributions specifies applying a parsing directive of the one or more common directive functions that is operative to direct a manner for obtaining the construct.

13. (Currently Amended) The computer readable storage medium of claim 1, wherein at least one of the identified attributions specifies a data generation directive of the one or more common directive functions that is operative to generate a set of information that is stored in its associated construct.

14. (Currently Amended) The computer readable storage medium of claim 1, wherein at least one of the identified attributions specifies a data validation directive of the one or more common directive functions that is operative to determine whether a

value assigned to its associated construct meets a criterion specified by the at least one attribution.

15. (Currently Amended) A method for handling constraints specified within an interactive environment, the method comprising:

identifying a pre-defined begin symbol and end symbol within a string-script entered in an interactive environment;

identifying a constraint between the begin symbol and the end symbol;

identifying a construct following the end symbol;

saving information that correlates the constraint with the construct as metadata that is associated with the construct; and

executing the string in the interactive environment via a cmdlet in the string,  
wherein executing the string includes: using the saved information to apply  
the constraint to the construct based on the saved information when the construct is encountered during execution, the constraint specifying a  
directive function of the cmdlet; and processing one or more built-in  
capabilities that include control structures via cmdlets,  
wherein the cmdlet shares the directive function provided by an administrative  
tool framework with one or more other cmdlets, the directive function  
being applicable to the construct via the constraint when a data structure  
that specifies an applicability of the directive function to the cmdlet  
becomes instantiated into an object of the administrative tool framework.

16. (Canceled).

17. (Currently Amended) The method of claim 15, wherein the constraint specifies comprises a predicate directive and wherein to apply the predictive directive constraint comprises determining whether a condition has been met before continuing processing of the construct.

18. (Currently Amended) The method of claim 15, wherein the constraint-attribution specifies applying intellisense to the construct to auto-complete the construct.

19. (Currently Amended) The method of claim 15, wherein the constraint-attribution specifies applying a parsing directive that is operative to direct a manner for obtaining the construct.

20. (Currently Amended) The method of claim 15, wherein the constraint-attribution specifies applying a data generation directive that is operative to generate a set of information that is stored in the construct.

21. (Currently Amended) The method of claim 15, wherein the constraint-attribution specifies a data validation directive that is operative to determine whether a value assigned to the construct meets a criterion specified by the attribution.

22. (Original) The method of claim 15, wherein the begin symbol comprises a left bracket and the end symbol comprises a right bracket.

23. (Currently Amended) A system that handles input parameters, the system comprising:

one or more processors; and

memory to store a plurality of computer-executable instructions for execution by the one or more processors, the computer-executable instructions, when execute, operable to:

receive a string into a command line interactive environment, the string including a plurality of pipelined cmdlets, the plurality of pipelined cmdlets to share use of one or more common directive functions provided by an administrative tool framework, the one or more common directive functions are applicable to each of the cmdlets via attributions;

identify an attribution for each of the plurality of pipelined cmdlets within the string, each attribution to specify a constraint for an associated construct;

identify the associated construct of each attribution in the string;

save information that correlates each constraint with its associated construct as metadata that is associated with each construct; and execute the string in the interactive environment, wherein the execution includes:

executing a first cmdlet of the plurality of pipelined cmdlets by using metadata associated with a first construct to apply a first constraint to the first construct to produce output objects;

providing the output objects to a second cmdlet of the plurality of pipelined cmdlets as input for a second construct; and executing the second cmdlet by using metadata associated with the second construct to apply a second constraint to the second construct.

wherein the one or more common directive functions used by each cmdlet is specified by a corresponding data structure that is instantiated into an object for the administrative tool framework.

24. (Canceled).

25. (Currently Amended) The system of claim 23, wherein at least one of the constructs comprises a variable, a structure, a function, or a script.

26. (Canceled).

27. (Currently Amended) The system of claim 23, wherein at least one of the attributions specifies applying intellisense to the construct to auto-complete the construct.

28. (New) The system of claim 23, wherein at least one of the identified attributions specifies applying a predicate directive of the one or more common directive functions to the string that is operative to determine whether processing of the string continues.

29. (New) The system of claim 23, wherein at least one of the identified attributions specifies applying a parsing directive of the one or more common directive functions that is operative to direct a manner for obtaining the construct.

30. (New) The system of claim 23, wherein at least one of the identified attributions specifies a data generation directive of the one or more common directive functions that is operative to generate a set of information that is stored in an associated construct of the at least one of the identified attributions.

31. (New) The system of claim 23, wherein at least one of the identified attributions specifies a data validation directive of the one or more common directive functions that is operative to determine whether a value assigned to its associated construct meets a criterion specified by the at least one attribution.